



PATENT  
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: )  
Raita DOI ) Confirmation No.: 8035  
Application No.: 10/661,537 ) Group Art Unit: 3721  
Filed: September 15, 2003 ) Examiner: Tawfik, S.  
For: SHEET FOLDING APPARATUS, SHEET ) **Mail Stop AF**  
PROCESSING APPARATUS AND )  
IMAGE FORMING APPARATUS )

Commissioner for Patents  
U.S. Patent and Trademark Office  
**Mail Stop AF**  
Alexandria, VA 22314

Sir:

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

In response to the Final Office Action of November 19, 2007 hereinafter (“Office Action”), Applicant respectfully requests a pre-appeal brief review of the pending rejections. A Notice of Appeal having a petition for extension of time and fee payment authorization therein is filed concurrently herewith. Applicant arguments follow.

Claims 1-11, 16, 18-21, 31-33, and 36-37 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 5,554,094 to *Viens*. Applicant respectfully submits that the Office Action has not established a *prima facie* case of obviousness and therefore all rejections under 35 U.S.C. § 103(a) should be withdrawn.

*Viens* does not disclose at least “a folding mode selecting device . . . [that] . . . selectively causes the sheet folding unit to operate one of the folding modes,” as recited in independent claims 1, 16, and 33. That is, there is no folding mode selecting device in *Viens* because *Viens*

teaches that an operator or user manually changes each folding apparatus 12 to perform either Z-folding, C-folding, or half-folding of sheets. See at least col. 4, line 61 through col. 5, line 8 of *Viens*. The user cannot be the equivalent of a folding mode selecting device.

The Office Action's admits that *Viens* does not show the claimed "folding mode selection selecting device," and that *Viens* operates to select the mode manually "via the user." In light of these admissions, the Office Action asserts that "it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified *Viens*' sheet folding machine by using a folding mode selecting device to replace the manual work of changing the folding mode, since it has been held that broadly providing a mechanical or automatic means to replace manual activity which has accomplished the same result involves only routine skill in the art." See page 2, last paragraph, to page 3, first paragraph, of the Office Action.

The Office Action cites *In re Venner*, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958) for the proposition that "broadly providing an automatic or mechanical means to replace a manual activity which accomplished the same result is not sufficient to distinguish over the prior art." The Office Action stretches *In re Venner* beyond its scope because the automatic or mechanical movement of the present invention is not just a matter of automating the manual replacement of the separate folding apparatuses (12) of *Viens*, with their unique sheet paths, to enable the letter Z-folding, letter C-folding, and Half-folding of the sheets. The unique structures of the folding apparatuses (12) of *Viens*, with their respective types of folding, are different from each other in the number of bypass devices used, positions of the bypass devices, number of the buckle plates used, and position of the buckle plates used for each folding mode. These unique structures cannot be simply automated when they do not even share common

structure. The Office Action's unsupported assumption that the present invention is an obvious automation of *Viens* is analogous to saying that a motorcycle is an obvious automation of a bicycle.

The Office Action maintains that the computer in *Viens* performs functions related to automatically selecting a folding mode. See page 2 of the Office Action. Column 4, lines 24-27 of *Viens* actually states that “[a] computer processing unit (not shown) including two keyboard/monitor units 14A, 14B allows the user to track the operation of the system 10.” The citation from *Viens* does not support the Office Action's assertion that a user could automatically select which folding mode to use. The tracking of a folding job by a computer as described in col. 4, lines 24-27 of *Viens* is not the same as “a folding mode selecting device” as recited in claims 1, 16, and 33. Thus, the statement in the Office Action is erroneous.

In reality, *Viens* actually discloses three separate sheet folding apparatus 12 that have separate and different folding sheet paths. Each sheet folding apparatus 12 can be exchanged to perform Z-folding, C-folding, or half-folding of sheets. The different sheet paths are shown in Figs. 5A-5B, 6A-6B, and 7A-7B, respectively. The sheet folding apparatus 12, and hence their sheet paths, are manually exchanged from one to another. See col. 1, lines 65-67; col. 4, line 61 through col. 5, line 8; col. 6, lines 29-35; and col. 8, lines 48-52 of *Viens*. As admitted in the Office Action, *Viens* does not explicitly teach any “folding mode selecting device” that causes an exchange or reconfiguration of the folding apparatuses. Thus, it can be argued that *Viens* teaches away from the present invention because *Viens* discloses a sheet folding apparatus 12 with separate and different sheet paths that must be manually exchanged to enable the Z-folding, C-folding, and half-folding of sheets. See col. 4, line 61 through col. 5, line 8; col. 5, line 9 through col. 8, line 30; and Figs. 5A-5B, 6A-6B, and 7A-7B of *Viens*.

Further, *Viens* does not disclose at least “the folding mode selecting device causes the folding position changing mechanism to change a sheet folding position in accordance with a selected one of the folding modes,” as recited in independent claims 1, 16, and 33. *Viens* performs the Z-fold on a product 28 by using a bypass device 91. The bypass device 91 is located in a fourth path after a nip 88 and deflects the product 28 into a nip formed between a roller 90 and a roller 96 (see Fig. 5A; col. 5, line 39 through col. 6, line 29). To the contrary, to perform a C-fold on the product 28, a bypass device 102 is mounted at a second station 66, and a buckle plate 104 is mounted in a third station 68 (see Figs. 6A and 6B; col. 6, line 30-34). It is clear from the figures in *Viens* that the bypass device 91 and the buckle plate 104 are mounted at positions where the bypass device 91 and the buckle plate 104 interfere with each other. Thus, when a mode is changed from the Z-fold to that C-fold, it appears necessary in *Viens* to move the bypass device 91 and then mount the buckle plate 104, manually. To the contrary, independent claims 1, 16, and 33 recite that “the folding mode selecting device causes the folding position changing mechanism to change a sheet folding position in accordance with a selected one of the folding modes.” Accordingly, Applicant respectfully submits that independent claims 1, 16, and 33 cannot be obvious over *Viens*.

In the present invention, the letter Z-folding, letter C-folding, and Z-folding of sheets require only a single configured sheet path. See at least page 12, lines 21-24 of the specification. All three types of sheet folding can be accomplished with one single sheet path configuration as seen in Fig. 3 of the specification. No alternate sheet paths are necessary and no manual exchange of parts is needed to accommodate the different folding modes of the present invention.

Additionally, Applicant respectfully asserts that "a mode switch that allows a user to select one of a plurality of folding modes," as recited in independent claims 1, 16, and 33, is not even discussed in the Office Action. If the Office Action alleges such a feature is obvious, the Office Action at a minimum should identify each and every feature taught or suggested in *Viens*. As pointed out in M.P.E.P. § 2143.03, all the claimed limitations must be taught or suggested by the prior art to establish *prima facie* obviousness of a claimed invention. Because *Viens* fails to teach or suggest each feature of independent claims 1, 16, and 33, the rejection under 35 U.S.C. § 103(a) should be withdrawn. Furthermore, claims 2-11, 18-21, 31-32, and 36-37 depend from one of independent claims 1, 16, and 33. Accordingly, claims 2-11, 18-21, 31-32, and 36-37 are also allowable because of the additional features they recite and the reasons stated above.

### CONCLUSION

In view of the foregoing, reconsideration and timely allowance of the pending claims are respectfully requested. If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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